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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/721,389	11/25/2003	Masahiko Hatanaka	MAT-8475US	1655

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RATNERPRESTIA
P O BOX 980
VALLEY FORGE, PA 19482-0980

EXAMINER	
DANG, DUY M	

ART UNIT	PAPER NUMBER
2624	

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11/16/2007	PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No.	Applicant(s)	
	10/721,389	HATANAKA ET AL.	
	Examiner	Art Unit	
	Duy M. Dang	2624	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *04 September 2007*.

2a)☒ This action is **FINAL**. 2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-11* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-11* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☒ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on *11/25/03* is/are: a)☐ accepted or b)☒ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☒ All b)☐ Some * c)☐ None of:

1.☒ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☐ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

DETAILED ACTION

1. Applicant's amendment filed on 9/4/2007 has been entered and made of record. Currently, claims 1-11 are pending.

Response to Arguments

2. Applicant's arguments filed 9/4/2007 have been fully considered but they are not persuasive.

In reply to applicant's arguments set forth at page 8 second full paragraph that of "*Bracamonte et al. specifies....target data size.*" The ejection of claims 1-11 set forth in paragraphs 5-6 below are incorporated herein. As understood, the compression ratio is defined as a ratio of the input and output in the compression. That means it refers to the ratio of the data to be compressed and data compressed. The compression depicted at 11, 15 and 19 in figure 1 compress first sample data size with scale factor SF_1, second sample data with scale factor SF_2, and i^{th} sample data with scale factor SF_i. Each scale factor is used to quantize its corresponding sample data size by the quantization employed the compression scheme. In addition, applicant is reminded that the examiner is entitled to give the broadest reasonable interpretation to the language of the claims. So the examiner considers CR (1, 2, or i) and CR_T in Bracamonte to be Applicant's sample data and target data sizes within the broad meaning of the term. The examiner is not limited to applicant's definition which is not specifically set forth in the claims. *In re Tanaka et al., 193 USPQ, (CCPA) 1977.*

In response to applicant's argument that the references fail to show certain features of applicant's invention, it is noted that the features upon which applicant relies (i.e., "threshold value in Bracamonte et al. refers to the difference between the values of CR_1 and CR_T, and not

the difference between the second sample data size and target data size", see last 3 lines of 2nd full paragraph of page 8 of the reply) are not recited in the rejected claim(s). Although the claims are interpreted in light of the specification, limitations from the specification are not read into the claims. See *In re Van Geuns*, 988 F.2d 1181, 26 USPQ2d 1057 (Fed. Cir. 1993).

Claim Rejections - 35 USC § 102

3. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

4. Claims 1-11 are rejected under 35 U.S.C. 102(e) as being anticipated by Bracamonte et al. (USPN 6,668,089. Art of record, IDS filed on 9/16/2005, referred as Bracamonte hereinafter).

Regarding claim 7 as a representative claim, Bracamonte teaches an image data compressing method (see figure 1) comprising:

compressing image data input at first compression rates to produce the first compressed data (see item 11 of figure 1 comprises compression ratios CR_1 and scaling factor SF_1 and this SF_1 also corresponds to claimed "first compression rate" (note that claimed rate is defined as a Q factor according to line 4 of page 6 of the instant specification) because they refer to Q factors, quantization factors);

selecting a first approximate-expression having a plurality of approximate-expression, the first approximation expression corresponding to a first sample data size nearest a data size of the

compressed data among the plurality of sample data sizes (i.e., the representation shown at column 6 lines 1-6 in together with figures 2a-2d and 4a-4d refer to the so called "approximate-expression table"; column 6 lines 1-10, equations shown at column 4 line 25 to column 5 line 10, column 1 lines 65-68 for definition of CR, and figures 2a-2d and 4a-4d: m_1 to m_6 and constant values shown at column 6 lines 1-10 refers to the so called "approximate expressions". Also the CR1 includes claimed "data size" because CR is defined as a ratios of the compressed data size and data sized to be compressed. In addition, compression scheme depicted at 11 of figure 1 employ quantizing data with corresponding scaling factor, see column 3 lines 25-40. For example, the data quantized by using SF_1 refers to first sample data size and the block of 8x8 pixels or matrix at column 3 lines 1-45 refer to plurality of sample data sizes. Furthermore, the coefficients m and b of the straight line equation represented in figures 2a-2d and 4a-4d refer to the so called "expressions" because such straight line equation is also a polynomial equation. This reasonable interpretation is consistent with applicant's disclosed page 7 lines 23-25 [note that claimed polynomial does not necessarily invoke quartic polynomial therefore examiner is entitled to reasonable broad interpretation]);

changing a compression rate of said first approximate expression (see items 13-14 of figure 1 wherein compression rate (SF2) is used);

calculating a second sample data size with the changed compressed rate (item 15 of figure 1 refers to a compression scheme that employs a quantization for quantizing data using SF_2 and the data to be quantized refers to claimed "second sample data size");

determining a second compression rate to be the rate corresponding to the calculated second sample data size within a predetermined threshold range of a target data size (see item 14 which calculates SF_2); and

compressing the image data at the second compression rate (see item 15 of figure 1 which compresses image data using SF_2).

Regarding claim 1, the advanced statements as applied to claim 7 above are incorporated herein. Bracamonte further teaches an image data compressing apparatus (see figure 1) comprising: an image data compressor for compressing image data input thereto at first and second compression rates to produce first and second compressed data, respectively (see compression ratios CR_1 and CR_2 depicted at 11 and 15 of figure 1); an approximate-expression selector having an approximate-expression table (i.e., the representation shown at column 6 lines 1-6 in together with figures 2a-2d and 4a-4d refer to the so called "approximate-expression table") including a plurality of approximate expressions corresponding to a plurality of sample data sizes (see column 6 lines 1-10, equations shown at column 4 line 25 to column 5 line 10, column 1 lines 65-68 for definition of CR, and figures 2a-2d and 4a-4d: m_1 to m_6 and constant values shown at column 6 lines 1-10 refers to the so called "approximate expressions". Also the CR1 includes claimed "data size") see Huffman table depicted as S63 of figure 6. In addition, the coefficients m and b of the straight line equation represented in figures 2a-2d and 4a-4d refer to the so called "expressions" because such straight line equation is also a polynomial equation. This reasonable interpretation is consistent with applicant's disclosed page 7 lines 23-25 [note that claimed polynomial does not necessarily invoke quartic polynomial therefore examiner is entitled to reasonable broad interpretation]), respectively, said approximate-expression selector

selecting an approximate expression from said plurality of approximate expressions, said first approximate expression corresponding to a first sample data size nearest a data size of said first compressed data among said plurality of sample data sizes, each of said plurality of approximate expressions indicating a change of a data size in response to a compression rate (see discussion pointed out above and column 5 line 60 to column 7 line 20); and a compression rate determining unit for determining said second compression rate based on said selected approximate expression (see item 15 of figure 1).

Regarding claims 2-3 and 8, it is noted these claims further require "polynomial" which is already discussed in the rejection of claim 7 above.

Regarding claims 4 and 9, Bracamonte further teaches wherein at least one of said plurality of sample data sizes is not greater than a target data size (see figures 2a-2d and 4a-4d. Note CR1 and CR2 in figures 2a-2d are not greater than CR_T and CR_I and CR_V in figures 4a-4d are not greater than CR_T).

Regarding claims 5 and 10, Bracamonte further teaches a memory for storing said input image data (see column 1 lines 15-17); and wherein said image data compresser compresses a portion of said image data stored in said memory at said first compression rate to produce said first compressed data (see item 11 of figure 1 and column 3 lines 1-4. While Bracamonte disclose memory for input image data and partitioning image into blocks, Bracamonte does not explicitly disclose to store a portion of said input image data. However, such storing a portion of input image data is inherently included in Bracamonte in order for 8x8 pixel blocks of image input data of Bracamonte to be compressed).

Regarding claims 6 and 11, the advanced statements as applied to claims 5 and 10 above are incorporated herein. Bracamonte further teaches a plurality portion of said image data (see 8x8 pixels blocks at column 6 lines 1-4).

Conclusion

5. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

6. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Duy M. Dang whose telephone number is 571-272-7389. The examiner can normally be reached on Monday to Friday from 6:00AM to 2:30PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Eileen D. Lillis can be reached on 571-272-6928. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

dmd
11/07

DUY M. DANG
PRIMARY EXAMINER